REMARKS

Claims 1-4, 6-9, 11, 13-19, 21-23 are pending.

Claims 1-4, 6-9, 11, 13-19, 21-23 are rejected.

Claims 1-4 and 14-19 are objected to.

Claim Objections

Claims 1-4 and 14-19 are objected to. The Examiner indicated that claim 1 recites "classifying the application data in the transport protocol layer as IP based", on line 6. The Examiner argues that IP is layer 3 while transport layer is layer 4, and it is unclear how can a transport protocol layer be classified as IP based. See Office Action dated November 25, 2008, p. 2.

First, as recited in claim 1, it is the application data that is classified in the transport protocol layer, not the transport protocol layer itself. In other words, the transport protocol layer is not classified as IP based as the Examiner indicates. Thus, the Examiner's confusion on how a transport protocol layer can be classified as IP based is not relevant.

Second, the Examiner is referred to Figure 2 of the Application, for example. In particular, the transport layer 30 can receive data from a variety of IP based and non-IP based sources such as IP traffic 50 and AV data 44, respectively. Thus, the application data received by the transport layer 30 can be IP or non-IP based. The transport layer 30 can then classify the data as IP based or non-IP based.

Accordingly, one skilled in the art would understand the scope of claim 1 and dependent claims 2-4 and 14-19. The Applicant respectfully requests that the Examiner withdraw the objections to claims 1-4 and 14-19.

Claim Rejections - 35 USC § 103

Claims 1-4, 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over W. Richard Stevens, "UNIX Network Programming", 1990, (hereinafter Stevens) in view of Raphaeli et at (US 20030103521, hereinafter referred to as Raphaeli).

Claim 1 recites "receiving application data in a transport protocol layer from an application in a device through a service access point." To teach receiving the application data in the transport protocol layer, the Examiner cited the socket created by the socket system call

from Stevens. Thus, according to the Examiner, the socket is the division between the application and the transport protocol layer.

Claim 1 also recites "classifying the application data in the transport protocol layer as internet protocol (IP) based or non-IP based." That is, the classification occurs *in the transport protocol layer*.

In contrast, what the Examiner has identified as the classification of the application data occurs *outside of the transport protocol layer*. In particular, the Examiner has identified the potential parameters of AF_INET and AF_UNIX of the *family* parameter of the socket system call to teach the classification as IP or non-IP based. As the *family* parameter is set in the socket system call creating the socket, it was determined prior to any processing by the protocol layer responsive to the socket system call. In other words, the determination between AF_INET and AF_UNIX (assuming the determination was made at all and not hard coded), was made by the application before the socket was even created. As described above, the socket was identified as the division between the application and the protocol layer. Since AF_INET or AF_UNIX is set in the socket system call on the application side and not in the protocol layer responsive to the socket system call, anything that the choice between AF_INET and AF_UNIX represents occurred *outside of the transport protocol layer*.

Claim 1 also recites "determining in the transport protocol layer if a connection through a lower protocol layer exists for the application data in response to the classification of the application data." That is the classification of the application data as IP or non-IP based is used in determining if a connection exists.

The Examiner cited the return value of the socket system call as an indication if a connection exists. Office Action, p. 3-4. However, this interpretation is contradicted by Stevens itself. In particular, Stevens states that "The socket system call returns a small integer value, similar to a file descriptor. We call this a socket descriptor . . . Before the socket descriptor is of any real use, the remaining four elements of the association must be specified." Stevens, p. 269. The remaining four elements are the local address, local process, foreign address, and foreign process. Stevens, p. 269. Thus, no address, whether local or foreign, has been specified when the socket descriptor is returned by the socket system call. As a result, there can be no determination if a connection exists from that socket descriptor if there is not an indication of the endpoints of the connection.

Moreover, Stevens addresses the interface to a protocol layer. It does not address the internal operation of the protocol layer. In addition, there is no indication that the address family has any bearing on the determination of whether a connection exists. There is no section of Stevens cited by the Examiner that describes how the address family parameter of a socket system call is used in the operation of the socket system call.

Moreover, Raphaeli is silent on IP, instead describing a powerline MAC layer. Thus, it does not suggest using a classification as IP or non-IP in determining if a powerline MAC connection exists. As Stevens is silent on these aspects, the Examiner is apparently relying on the knowledge of one skilled in the art to show that the determination of whether a connection exists is based on the classification as IP or non-IP.

In the response filed on July 21, 2008, the Applicant traversed the Examiner's assertion and demanded that the Examiner produce authority for the Examiner's argument. MPEP 2144.03 C. If Applicant Challenges a Factual Assertion as Not Properly Officially Noticed or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding With Adequate Evidence. However, no authority was presented.

Accordingly, as described above, Stevens and Raphaeli do not teach each and every element of claim 1, and the Examiner is apparently relying on personal knowledge without authority. The Applicant respectfully requests that the Examiner withdraw the rejection of claims 1 and dependent claims 2-4, and 14-18.

Claims 6-7, 9 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrew S. Tanenbaum, "Computer Networks", Fourth edition, (hereinafter referred to as Tanenbaum) in view of Stevens, further in view of Kodaira (US 20010048633 Al).

Claim 6 recites "determining an order of rules associated with the classifier to apply to the data packet using a priority of each of the rules; and applying the rules to the data packet in the order, including when applying a particular rule to the data packet." That is, the priorities of the rules are used in determining the order applied to the packet, not the order packets are processed.

In contrast, the Examiner noted that Tanenbaum and Stevens did not disclose using priorities of rules, and instead cited the priority parameter of Kodaira. Office Action, p. 10. However, the priority parameter of Kodaira is first, not associated with a rule, but with a packet, and second is used to prioritize the processing of packets, not the application of rules to a single

packet. For example, the priority parameter is passed through the various protocol layers until it arrives at the IP protocol layer 604 where the priority specification field 811 of the IP header 810 of the packet can be set. See Kodaira, ¶42-44, and in particular, ¶44. This priority parameter is associated with a packet, not a rule that can be applied to the packet.

Accordingly Tanenbaum, Stevens, and Kodaira do not teach each and every element of claim 6. The Applicant respectfully requests that the Examiner withdraw the rejection of claim 6 and dependent claims 7, 9, and 21-23.

Claim 22 recites that "for each rule associated with audio/visual application data, the rule includes only one classification parameter." That is, rules for audio/visual application data only have one classification parameter.

In contrast, the citation for a classification parameter provided by the Examiner includes *multiple* parameters, not only one classification parameter. For example, in the rejection of claim 21, parent claim of claim 22, the Examiner cites "the table containing all values if 5-tupe [sic], page 269, line 4-10," from Stevens as the classification parameters. Office Action, p. 11. In fact, the 5-tuple includes *five parameters*: the protocol, the local address, the local process, the foreign address, and the foreign process.

The Examiner cited Tanenbaum to teach that "the rule includes only one classification parameter (the IP address of a customer's house for "a video on demand system" shown in Figure 7-78, Section 7.4.8)." Office Action, p. 11. However, the cited section of Tanenbaum does not teach that only an address of the 5-tuple is included. In fact, the cited section of Tanenbaum gives a general description of video on demand. The section addresses issues such as "Is video on demand really like renting a video..." Tanenbaum, Section 7.4.8, ¶2. Nothing in the entire section addresses packet level analysis, let alone rules for AV application data having only one classification parameter.

Accordingly Tanenbaum, Stevens, and Kodaira do not teach each and every element of claim 22. The Applicant respectfully requests that the Examiner withdraw the rejection of claim 22 and dependent claim 23.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens in view of Raphaeli, further in view of Andrew S. Tanenbaum, "Computer Networks", Fourth edition.

Claim 19 is dependent on claim 1. The addition of Tanenbaum does not cure the deficiencies of Stevens and Raphaeli described above. Moreover, similar to claim 22, described above, claim 19 recites "comparing the application data to only at least one destination address within the at least one classifier rule." That is, of various parameters of a classifier rule, the application data is compared to only the at least one destination address. As described above, Tanenbaum focuses generally on video on demand, not on packet analysis. Thus, the addition of Tanenbaum does not teach that the application data is compared to only the at least one destination address of a classifier rule. The Applicant respectfully requests that the Examiner withdraw the rejection of claim 19.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over S. Tanenbaum in view Stevens and Kodaira, further in view of Malkin (US 6272145 B1).

Claim 8 is dependent on claim 6. The addition of Malkin does not cure the deficiencies of Tanenbaum, Stevens, and Kodaira described above with respect to claim 6. For example, Malkin does not address priorities within rules and their usage when applying the rules to data packets. Instead Malkin focuses on multilink communication. See Malkin, Abstract, and col. 1, ll. 6-18. Accordingly, Tanenbaum, Stevens, Kodaira, and Malkin do not teach each and every element of claim 8. The Applicant respectfully requests that the Examiner withdraw the rejection of claim 8.

Claims 11, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens in view of Kodaira.

Claim 11 recites "analyzing an incoming data packet according to a plurality of sets of parameters, wherein the sets of parameters analyzed depends upon a type of service access point from which the data packet came, each set of parameters includes a priority, and the sets of parameters are used in analyzing the data packet according to an order of the priorities of the sets of parameters." That is, the sets are used in the order according to the set priorities to analyze the data packet.
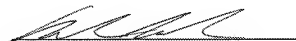
The Examiner notes that Stevens does not teach a priority and again cites Kodaira to teach a priority parameter. However, as described above, the priority parameter of Kodaira is used in packet priority, not in the order of sets of parameters used in analyzing a data packet. Accordingly, Stevens and Kodaira do not teach each and every element of claim 11. The

Applicant respectfully requests that the Examiner withdraw the rejection of claim 11 and dependent claim 13.

For the foregoing reasons, reconsideration and allowance of the claims of the application as amended is requested. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

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